

# Specifications

## 4SPIN C4S LAB

Dimensions	98 (l) x 66 (w) x 110 (h) cm
Deposition chamber dimensions	Ø 61 x 66 (h) cm
Weight	120 kg
Power supply	230 V ~ 50 Hz (standard) 110 V ~ 50 Hz (on request)
Operating humidity	20 – 40 % RH noncondensing
Shipping weight and dimensions	220 kg, 120 (l) x 80 (w) x 150 (h) cm

## PROCESSING PARAMETERS

High voltage supply	0 kV to 60 kV
High voltage current	0 – 999 µA
Collector rotations	10 – 5000 rpm (according to collector)
Maximum solution volume	2 x 30 ml
Feed rate	0 – 9999 µl/min
Deposition time	0 – 1400 min
Airflow	3 – 99 l/min
Heated air temperature	30 – 80 °C
Electrode distance	5 – 25 cm

## COLLECTORS

C1 STATIC CONTINUAL	23 x 23 cm
C2 STATIC PATTERNED	23 x 23 cm, gap width 20 – 60 mm
C3 ROTATING CONTINUAL	Ø 12 x 25 cm
C4 ROTATING PATTERNED	Ø 12 x 25 cm, gap width 20 – 80 mm
C5 TUBE COLLECTOR	Ø 2 – 7 mm, rod length 22 cm
C6 ENDLESS BELT	substrate size (25 x 100) cm²
C7 ROTATING THIN DISC	Ø 12 cm, 0.1 mm (blade), 2, 5, 10 mm

Collecting sliding tool is available for the C2 and C4 collectors.

## EMITTERS

E1 SINGLE JET	1 x needle
E2 MULTI JET	6 x needle
E3 NEEDLELESS ROD	Ø 18 mm
E4 MULTI NEEDLELESS ROD	Ø 45 mm
E5 LINEAR MULTI NEEDLELESS	width 128 mm (16 channels)
E6 COMPOSITE DOUBLE JET	2 x needle
E7 COMPOSITE NEEDLELESS	Ø 18 mm
E8 COMPOSITE MULTI NEEDLELESS	width 128 mm (2 x 16 channels)
E9 COAXIAL SINGLE JET	2 x needle

An electroblowing attachment is available for E1, E3 and E4. The E5 emitter has it built-in.

Syringes	Luer Lock, male termination	3 – 30 ml, PP body
Dosing tubes	Luer Lock, male/ female termination	PVC and teflon
Needles	Hamilton compatible	10 – 34 gauge, 51 mm

## ACCESSORIES

CLEANING TOOL FOR CAPILLARY NEEDLES

COLLECTING SLIDING TOOLS (VARIOUS SIZES)

ELECTROBLOWING ATTACHMENTS

SWIVEL HOLDER FOR UP TO FOUR COLLECTORS AND FOUR EMITTERS

DUAL SYRINGE CASING FOR TWO CHANNEL DOSING WITH ADAPTERS

PTFE TUBING

SYRINGES AND NEEDLES

COLLECTOR HOLDER FOR EASY SAMPLE MANIPULATION

PROTECTIVE PLATE PTFE 2 mm